



PROCESS DESCRIPTION



1. GENERAL

The system is designed to process white grade furnishes with low groundwood content.

The plant consists of following main groups:

1. High consistency pulping with one pulper without extraction plate and a Fiberizer as coarse screen. A Drumsorter is used as tailing stage. A two conveyor system feeds the waste paper to the pulper.
2. Two dumpchests and one bad batch chest with vertical agitators to hold the pulper batches and provide sufficient retention time for fiber swelling and chemical reactions.
3. A blend stage to blend normal furnish and bad batches.
4. A perforated three stage screening system with high density cleaners, two Barrier Screens in feed forward and a Rejectsorter as tailing stage.
5. A three stage slotted screening system arranged in a cascade circuit. The plant production is adjusted through the supply pump to the first slotted screening stage.
6. Through a fan pump arrangement a directly coupled pre-flotation deink system with a secondary stage.
7. Another directly coupled fan pump supplies stock to a three stage forward cleaner plant.
8. A two stage reverse cleaner plant is directly coupled through a fan pump and discharges to the first washer.



PROCESS DESCRIPTION



9. The first washer (Vario No. 1) discharges thick stock to a chest.
10. The first water loop is closed from the washer through a dissolved air clarifier. Makeup water is added from the second water loop. All water clarified in the first loop is used in parts 1 through 9.
11. A Disperger and bleaching plant is included to disperse impurities and increase brightness. Stock is discharged from the 2nd Disperger to a bleach tower acting as a storage tower for the system.
12. The stock is then diluted down to 4% and pumped through another fan pump arrangement to post-flotation system. The washer is connected to the deink system through another fan pump.
13. The stock is diluted back to approximately 5.5% and equalized in consistency in the wet lap supply chest.
14. The stock is then pumped to a double wire press, dewatered and brought up to a consistency of approximately 50% in a heavy duty press nip. A cutter and layboy puts the sheet on a conveyor. No pallets will be used to avoid contamination with wood chunks.
15. All filtrate is collected in the wetlap filtrate chest and used as dilution water for consistency control at the wetlap supply chest.
16. All sludge is collected together with bad stock from the bad batch chest and rejects in the sludge chest. A centrifugal pump conveys the sludge to a double wire press for thickening to about 35%. A conveyor arrangement discharges the sludge to trucks outside the building.



PROCESS DESCRIPTION



The system is fully controlled from a DCS with the exception of the finished bale handling which is controlled by a PLC. Usual start and stop procedure is in automatic group start, operator can also select manual mode. A production control allows adjustment of the system output according to customers need. Allowable turn down ratio is approximately 60% (Find attached production control flow sheet).

The control system provides several reports and overviews as shown in attached graphic layouts.

Detailed conditions for program interlocks can be found in the logic diagrams.

